

REMARKS

A number of claims have been rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 5,995,161 issued to Gadre et al. that describes a video processor that processes subvideo data to be superimposed on a main video image during a display image scanning process by dividing and partitioning the execution of subvideo data between a programmable CPU and a dedicated hardware processor. In Gadre, the CPU is used to only process the simple, less time critical pixel data whereas the more time critical pixel data is processed in real time using a dedicated hardware processor operating under the control of the CPU (at Abstract). However, at column 5 lines 22 - , "The hardware devices in the subvideo processor 30 are designed specifically to interpret the pixel data and associated command data transferred to the subvideo processor 30 by the CPU 26 and provide color and contrast data to the blender 28 to produce the desired subpicture images. Hence, the interpretation of the command data in the Subpicture format is divided or partitioned between the CPU 26 and the dedicated subvideo processor 30...". Therefore, Gadre specifically requires data processing between the CPU 26 and the subvideo processor 30 be strictly partitioned such that the tasks left to the subvideo processor 30 is limited only to "interpret the pixel data and associated command data" and all else left strictly to the CPU 26. Thus, by strictly limiting the processing of data in this way, there is no ability to optimize the data processing tasks between the CPU 26 and the processor 30, by for example, shifting tasks to be performed by the CPU to the processor, and vice versa.

In contrast, claim 1, requires

at least one processing unit for processing software programmed to perform *at least some subpicture data stream decoding* and subpicture display control command execution; and

a subpicture hardware unit configured to receive said subpicture pixel data stream, subpicture display control information extracted from a subpicture display control command executed by said at least one processing unit, subpicture display control commands not executed by said at least one processing unit, and execute the subpicture display control commands not executed by said at least one processing

unit, and generate subpicture display information for communication to a DVD video display unit..."

Therefore, in contrast to Gadre, the decoding of the subpicture data stream is performed by both the at least one processing unit and the subpicture hardware unit. In this way, the task sharing between the at least one processor and subpicture hardware unit provides a more efficient, in both time and resource, system than available in Gadre since processing tasks are strictly defined with no options for task sharing between the processor or hardware unit.

Therefore, the Applicant believes that claim 1 and all of its dependent claims are neither anticipated or suggested by Gadre and are allowable.


Independent claims 16 and 28 recite essentially the same limitations as independent claim 1 and are therefore also allowable for at least the reasons stated for claim 1. All remaining dependent claims depend either directly or indirectly from independent claims 16 and/or 28 and are therefore also allowable.

The Examiner rejected a number of claims as being unpatentable under U.S.C. 103(a) over Gadre in view of U.S. Patent 5,758,007 issued to Kitamura et al which has been discussed in detail in previous responses and therefore adds nothing to the primary reference Gadre to render the rejected dependent claims 15 and 30 as being unpatentable.

CONCLUSION

In view of the foregoing, it is respectfully submitted that all pending claims are allowable. Should the Examiner believe that a further telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP


Michael J. Ferrazano
Reg. No. 44,105

P.O. Box 778
Berkeley, CA 94704-0778
(650) 961-8300